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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,484	11/20/2003	Dirk L. Basting	1602.01	8434
21901	7590	03/13/2007		
SMITH HOPEN, PA 180 PINE AVENUE NORTH OLDSMAR, FL 34677			EXAMINER DETSCHER, MARISSA	
			ART UNIT	PAPER NUMBER
			2886	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/13/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/718,484

Applicant(s)

BASTING ET AL.

Examiner

Marissa J. Detschel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The preliminary amendment filed on October 11, 2004, has been entered.

Claim Objections

Claims 1 and 8 are objected to because of the following informalities:

In claim 1, line 7, the word "cameral" should be replaced with "camera"

Claim 1, line 7 contains the limitation "the sensitivity of each camera pixel" and there is insufficient antecedent basis for this. The Examiner suggests changing this to "a sensitivity of each camera pixel"

Claim 8 should end in a period (.).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 7-10 currently read:

"correcting the sensitivity of each camera pixel to compensate for damage to each camera pixel caused by radiation;
correcting said sensitivity by shifting the wavelength of said radiation by small, incremental steps;"

Both of these steps are drawn to two separate steps of correcting the sensitivity of each camera pixel, and therefore, the claim currently includes two steps of correcting the pixels. One of the steps discloses merely correcting the sensitivity, but does not disclose how the sensitivity is corrected. The second step discloses a first in a series of steps to correct the sensitivity, the

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first step being shifting the wavelength of the radiation by small, incremental steps. Are these two steps related? Is the second step a first in a series of steps pertaining to the first step?

Claims 4-9, which depend from claim 1, inherit the problem of this claim, and are therefore also rejected under 35 U.S.C. 112, second paragraph.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 1 is rejected under 35 U.S.C. 101 because it is directed towards non-statutory subject matter.

The claim is directed to a judicial exception as being drawn to an abstract idea; as such, the claim must either have a physical transformation and/or a useful, concrete, and tangible result. The claim fails to include transformation from one physical state to another. The claim appears to be useful and concrete, but there does not appear to be a tangible result claimed.

Merely "evaluating the sensitivity of each individual pixel..." would not appear to be sufficient to constitute a tangible result, since the outcome of the "evaluating the sensitivity of each individual pixel..." step has not been used in a disclosed practical application nor made available in such a manner that its usefulness in a disclosed practical application can be realized. How is this evaluation used? What is the overall result of the evaluation? In view of all of this, the Examiner makes note that the limitation of claim 9 of "increasing the sensitivity of said CCD camera by an amount that compensates..." is an example of a concrete, useful, and tangible result. The Examiner suggests adding this limitation as the final step disclosing the final result of claim to overcome the rejection under 35 U.S.C. 101. See OG Notices: 22 November 2005, "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility".

Furthermore, Part b. *Practical Application the Produces a Useful, Concrete, and Tangible Result* under Section IV *Determine Whether the Claimed Invention Complies with the Subject Matter Eligibility Requirement of 35 U.S.C. Sec. 101* sentence 3 in the OG Notice from 22 November 2005 states 'In determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible, and concrete, but rather that the final result achieved by the claimed invention is "useful, tangible, and concrete."

Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art of record is Rogers et al. (USPN 7,038,720), Hecht (USPN 4,751,659), Hedin et al. (USPN 7,038,782), and Sandstrom (USPN 6,616,185).

Rogers discloses a method for adjusting the gain and offset in an Analog Front End chip as pixels of a CCD are processed to reduce errors of the overall system caused by the light source, focusing element, and image detector.

Hecht discloses an image bar having defective pixel generators that address appropriate pixel positions to create a defect free image. Binary bitmaps and binary words are used to describe the level of defectiveness of the pixels.

Hedin discloses an apparatus for locking the wavelength of a laser wherein the beam from the laser is sent through an etalon and the interference pattern is projected onto a series of pixels of a CCD so that adjacent pixels detect a specific portion of the phase of the periodic interference pattern created by the etalon. As the wavelength of the laser beam is tuned, the interference pattern moves across the series of pixels.

Sandstrom discloses a method for compensating for the impact of defective pixels in a spatial light modulator when the spatial light modulator is used to project a pattern onto a

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workpiece using a KrF excimer laser. The adjacent pixels of the defective pixel are used for compensation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa J. Detschel whose telephone number is 571-272-2716. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur Chowdhury can be reached on 571-272-2287. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

March 6, 2007
MJD



**HWA (ANDREW) LEE
PRIMARY EXAMINER**